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July 23, 2009

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
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CHIEF CLERKS OFFICE

Via Hand Delivery
Ms. LaDonna Castanuela, Chief Clerk
Office of the Chief Clerk, MC-105
Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin, Texas 78753

Re: Consolidated SOAH Docket No. 582-08-0861; TCEQ Docket Nos. 2007-1820-AIR and 2008-1210-AIR; Application of NRG Texas Power LLC for State Air Quality Permit 79188 and Prevention of Significant Deterioration Air Quality Permit PSD-TX-1072 and for Hazardous Air Pollutant Major Source Permit No. HAP-14

Dear Ms. Castañuela:

Enclosed are an original and seven copies of Protestant Douglas Ray's Reply to Exceptions of NRG Texas Power LLC and the Executive Director in connection with the above referenced proceeding. As per the parties' agreement and the certificate of service that accompanies the filing, all parties have been served electronically.

If you have any questions or concerns, please do not hesitate to give us a call.

Sincerely,

BLACKBURN CARTER, P.C.

Charles W. Irvine

Enclosures

CONSOLIDATED SOAH DOCKET NO. 582-08-0861
TCEQ DOCKET NOS. 2007-1820-AIR AND 2008-1210-AIR

APPLICATION OF NRG TEXAS POWER LLC FOR STATE AIR QUALITY PERMIT 79188 AND PREVENTION OF SIGNIFICANT DETERIORATION AIR QUALITY PERMIT PSD-TX-1072 AND FOR HAZARDOUS AIR POLLUTANT MAJOR SOURCE PERMIT NO. HAP-14	**§**	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**

PROTESTANT DOUGLAS RAY'S REPLY TO EXCEPTIONS OF NRG TEXAS POWER LLC AND THE EXECUTIVE DIRECTOR

COMES NOW, Douglas Ray ("Protestant") and pursuant to the rules of the Commission files this his Reply to NRG Texas Power LLC's (the "Applicant" or "NRG") and the Executive Director's ("ED") Exceptions to the Proposal for Decision and Order in the above referenced matter.

I. ARGUMENTS IN RESPONSE

Both the Executive Director and NRG except to the ALJs' findings and conclusions that the MACT application was fatally flawed because it did not comply with the applicable rules when it failed to identify what mercury-specific control technology might be used. Protestant disagrees and respectfully requests that the Commission adopt the ALJs' proposed Findings of Fact and Conclusions of Law regarding the significant deficiencies in the MACT HAP-14 permit.

These deficiencies raise very basic issues such as whether an applicant can submit an application and obtain a permit that sets emissions limits without actually telling the agency or the public how they will achieve that limit? Can the applicant admit that it will need to install a mercury-specific control technology, but at the same time avoid committing to actually doing so? Can the Commission adopt EPA's case-by-case MACT regulations, and then not follow the plain

and very clear language of those regulations? Are the public participation requirements promised by the Texas SIP being met when the applicant refused to identify a control technology—how can the public meaningfully evaluate and comment on the draft permit?

A. A Case-by-Case MACT Determination must follow the specific requirements of the Clean Air Act § 112(g) and 40 C.F.R. Part 63.

The Clean Air Act Section 112 MACT requirements are among the strictest limits set forth in the Clean Air Act. In order to satisfy the MACT requirements, NRG Limestone's case-by-case analysis must satisfy at least the following standards:

- Set a MACT Floor that must "not be less stringent than the emission control which is achieved in practice by the best controlled similar source;"[1]
- Go 'beyond the floor' by identifying whether further HAP reductions are "achievable" in light of "the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements;"[2]
- Consider a full range of methods for limiting HAP emissions;[3]
- Construe "similar source" broadly to include all units with "comparable emissions," "similar in design and capacity" such that they can "be controlled using the same control technology";[4]
- Require limits on all HAPs;[5] and
- Rely on surrogates only if the surrogate is specifically linked with each HAP that it is intended to represent.[6]

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[1] 42 U.S.C. § 7412(d)(3); 40 C.F.R. 63.43(d)(1).
[2] 42 U.S.C. § 7412(d)(2).
[3] 42 U.S.C. § 7412(d)(2); *Sierra Club v. EPA*, 479 F.3d 875, 882-83 (D.C. Cir. 2007); *National Lime Association v. EPA*, 233 F.3d 625, 634-35 (D.C. Cir. 2000).
[4] 40 C.F.R. § 63.41.
[5] *National Lime*, 233 F.3d at 634.
[6] *Mossville Environmental Action Now v. EPA*, 370 F.3d 1232, 1242-43 (D.C. Cir. 2004).

The term "MACT" refers to the level of control required by § 112(d) of the Clean Air Act, which is "the maximum degree of reduction in emissions."[7] Therefore it is an emissions limitation, as frequently described by NRG and the ED in their exceptions. However, one only reaches a determination of the appropriate emissions limitation through the identification and implementation of appropriate control technologies. Both federal regulations and TCEQ rules contain practicaly identical definitions of "control technology," recognizing that the MACT emissions limits result from the use of control technologies.[8]

B. Texas adopts federal MACT regulations which require the Applicant to identify, analyze and commit to a control technology in a case-by-case MACT application

Texas MACT regulations state that a case-by-case MACT application must be "[c]onsistent with the requirements of 40 Code of Federal Regulations § 63.43...."[9] The federal MACT application requirements are found at 40 C.F.R. § 63.43(e), entitled "*Application requirements for a case-by-case MACT determination*". In this regulation, EPA states that:

> (1) An application for a MACT determination ... **shall specify a control technology** selected by the owner or operator that, if properly operated and maintained, will meet the MACT emission limitation...[10]

Following this, § 63.43(e)(2) lists, under thirteen subsections, all the specific items of information that must be included in the MACT application. The pertinent subsections state that:

> (2) ... the application for a MACT determination **shall** contain the following information:
>
> ...
>
> (xi) The selected control technology to meet the recommended MACT emission limitation, **including technical information on the design,**

[7] 42 U.S.C. § 7412(d)(3).
[8] 40 C.F.R. § 63.41; 30 T.A.C. § 116.15(2).
[9] 30 Tex. Admin. Code § 116.404; *see also* TR at 622: 2-5 (testimony of Applicant's MACT expert, Mr. Campbell).
[10] 40 C.F.R. § 63.43(e)(1).

> **operation, size, estimated control efficiency of the control technology...**[11]
>
> (xii) Supporting documentation including **identification of alternative control technologies considered** by the applicant to meet the emission limitation, and **analysis of cost and non-air quality health environmental impacts or energy requirements for the selected control technology;**[12]

The Applicant's MACT expert, Mr. Campbell, includes this exact same list of required information in the review of federal regulatory requirements in his Case-by-Case MACT Application.[13] Therefore, § 63.43(e) describes the information that the applicant ***is required to provide with the application*** for a case-by-case MACT determination, including not just a identification of the specific control technology to be used, but also detailed technical information regarding the selected and alternate control technologies.

C. The MACT application is deficient, incomplete, and/or fatally flawed because it fails to identify a mercury-specific control technology

The ALJs found and concluded that NRG's MACT application failed to comply with applicable requirements,[14] and proposed an order that it should be remanded.[15] The ALJs based their PFD upon the evidence presented during the hearing and in the administrative record. During the hearing, several witnesses for the Applicant reiterated that NRG has not yet selected a mercury control, nor even decided if a mercury control is necessary. For example, Mr. Ben Carmine testified as follows:

> Q. Would I be correct in stating that you have not identified one specific mercury control technology that you intend to install at Limestone Unit 3?
>
> A. You would be correct.
>
> Q. As director of environmental operations, have you selected a mercury control technology for Unit 3

[11] 40 C.F.R. § 63.43(e)(2)(xi).
[12] 40 C.F.R. § 63.43(e)(2)(xii) (emphasis added).
[13] NRG Ex. 7, at 51-52 (summarizing all thirteen subsections of 40 C.F.R. § 63.43(e)(2)).
[14] Proposed Findings of Fact, Nos. 291-294; Proposed Conclusions of Law, Nos. 41-43.
[15] Proposed Order, No. 3.

yet?

A. Mercury control technology has not been selected yet for Unit 3.[16]

Similarly, Mr. Cabe, who prepared the MACT Application for NRG, testified "We haven't proposed a technology."[17] Also Mr. Campbell stated that he could not identify what technologies will be used to control mercury emissions from the facility.[18]

Beyond the vague offer to do something if needed, NRG has failed to select and identify a mercury-specific control technology that it will install. As a result, NRG has also failed to provide the technical information and supporting documentation required by 40 C.F.R. § 63.43(e). The renders their MACT application incomplete, and as stated in the PFD, "fatally flawed."

D. The "suite" of mercury control technologies identified by NRG does not satisfy this clear requirement because at least one crucial piece of this "suite" is absent

Subsequent to the hearing, and after the issuance of the PFD which proposed that the MACT Application is fatally flawed, the ED and the Applicant now concoct new theories in attempts to persuade the Commission to issue the permit. As best understood, both NRG and ED make the argument that the "suite" of the four separate control technologies —selective catalytic reduction (SCR), wet flue gas desulfurization (FGD), a fabric filter baghouse, and some other effective mercury control — together are the mercury control technology. The MACT Application properly identifies the first three of these (SCR, FGD and baghouse) and Protestant was able to use the information from the MACT *and* BACT analyses to develop evidence, present testimony and cross-examine witness during the hearing. These three technologies

[16] TR at 72:15-23.
[17] TR at 474:17.
[18] TR at 604:6-9.

primarily control NO_x (SCR), particulate matter (baghouse) and SO_2 (FGD).[19] These technologies are not mercury-specific control devices, however they do capture some mercury, a so-called "co-benefit."

The fourth element of this "suite" can fairly be characterized as "*something else we might do to reach our mercury emissions limits.*" Granted, NRG does give Protestant a veritable smorgasbord of possibilities. Between the PSD and MACT applications and their experts' testimony NRG mentions variously "sorbent injection," a "fuel additive," and "halogen or sorbent addition."[20] At other times, NRG is even more vague, one could say even mercurial:

> ...BACT for mercury reduction is the use of SCR, FF, and wet FGD air pollution control system that will be installed at LMS3.... NRG Texas LP will also evaluate control technologies **such as sorbent, alkali, or other additives** and will employ proven technologies to achieve the proposed emission limit is necessary;[21]

> The unit will be equipped with a low-NOx combustion system, a selective catalytic reduction (SCR) system, a wet Flue Gas Desulfurization (wet FGD) system using limestone as the scrubber reagent, **sorbent injection or other effective mercury control**, and a fabric filter;[22]

and

> NRG Texas proposes to use the following suite of controls to limit HAP emissions from the PC boiler: a selective catalytic reduction system, a wet flue gas desulfurization system, **state-of-the art mercury controls**, and a fabric filter.[23]

Other than these, and similarly worded statements, nowhere in either application (PSD or MACT) is there any more detailed discussion of mercury-specific control technologies. NRG's claim that the "suite" of control technologies identified in the application is sufficient to comply with § 63.43(e) fails at first glance. Nowhere did the Applicant provide technical information on the design, operation, size, or estimated control efficiency of any mercury-specific control

[19] NRG Ex. 2 at 8: 26-33 (B. Carmine).
[20] See NRG Exceptions, at 8-9.
[21] NRG Ex. 6, at Bates # NRG 000619 (PSD application).
[22] NRG Ex. 7, at 18 (MACT application).
[23] NRG Ex. 7, at 54 (MACT application).

technology, as clearly required by 40 C.F.R. § 63.43(e). Nowhere did the Applicant provide information or analysis of alternative HAP control technologies. Naturally nowhere did the Applicant analyze of cost and non-air quality health environmental impacts or energy requirements for the selected control technology, because it has simply not selected one. Indeed, throughout these proceedings, it would be fair to say that NRG refused to identify which, *if any*, technology they would use.

NRG is simply sitting on the fence in an obvious attempt to have it both ways. While its own experts acknowledge that some sort of mercury-specific control technology will be required, the company does not want that obligation forced upon them by some commitment, inconvenient permit term or special condition.

E. The Applicant's and ED's witnesses admit that mercury-specific control technologies will be required at Limestone Unit 3

The record clearly reflects that several witnesses testified that the Limestone Unit 3 will require some sort of mercury-specific control technology in order to meet the MACT limits in the draft HAP-14 permit. Mr. Carmine stated that "... Unit 3 ***will*** incorporate a combination of these controls ***along with*** a specific mercury control technology such as injection of sorbents or a fuel additive to minimize mercury (Hg) emissions."[24] NRG's MACT expert, Mr. Cabe:

> Q. ... Is it possible that they might construct this plant without a state of the art mercury control and still meet their MACT emissions limits?
>
> A. I believe they'll need some form of mercury control to meet those emission limits. I don't know what level of control would be needed, but I know that there are controls now that are there that could meet those limits.
>
> Q. But it is possible that once they reach their final design specification for their plan, they realize they might be able to reach those MACT

[24] NRG Ex. 2, at 8:31-33; also TR at 72:10-14.

emissions limits without any additional mercury
controls and thereby decide that they don't need them.
Is that a possibility?
A. I think that would be very unlikely.[25]

Finally, TCEQ's permit engineer, Mr. Linville is similarly convinced: "I would be very surprised that they could get that level of [mercury] reduction without using one of those methods of additional control."[26]

As far as Protestant is aware, there is not a single piece of evidence or testimony presented in this proceeding that would indicate that NRG will be able to operate Limestone Unit 3 within their MACT permit limits without the additional mercury-specific control technology.

F. The selection of the mercury-specific control technology cannot be left to the "as-built information" stage

Both NRG and the ED argue that the selection of mercury controls are the type of final specifications and information that do not have to be provided until after the permit is issued. The ED calls this the "as-built information" and argues, along with NRG that the draft permit only requires this kind of information *i.e* "final plans and engineering specifications" no later than 30 days before start-up.[27] Neither the ED nor NRG cite any Commission rule, policy, guidance or precedent to justify this position when it comes to something as important as the mercury emission controls. Aside from the fact that these arguments are completely inconsistent with applicable rules,[28] if they had merit, there would be no need for *any* applicant to identify *any* particular control technology in their application. This most basic information is required by TCEQ staff before they can review an application, and required by the public before they can meaningfully participate and comment on an application.

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[25] TR at 475:12 – 476:2.
[26] TR at 962:23-25 (referring to advanced carbon injection or some other sorbent injection technique); *see also* S.C. Ex. 40 at 104:16-20 (Linville deposition).
[27] MACT Draft Permit Sp. Cond. No. 21, NRG Ex. 9, at 12.
[28] 30 Tex. Admin. Code § 116.404; 40 C.F.R. § 63.43(e).

G. The MACT Floor for mercury should be 0.0075 lb/GWh because it is being achieved at the Brayton Point Station

In its MACT Application, NRG identifies the most stringent emission limit for mercury as being 0.0075 lb/GWh currently being achieved at the three bituminous coal-fired units at Brayton point Station, Massachusetts.[29] These units achieve this by the use of activated carbon injection in conjunction with state-of-the-art controls for reducing emissions of NO_x, SO_2 and particulate matter.[30] Protestant believes that this represents the true MACT Floor for mercury, and NRG's higher limits and sliding scale are not reflective of MACT, and are the result of an erroneous and improper analysis.

II. OTHER ISSUES

Protestant notes that the Applicant does not except to the lowered emissions limits for total PM/PM_{10}, NO_x and CO proposed by the ALJs.[31] Indeed, the Applicant commits to operation the Limestone plant in a manner that will achieve all these lowered emission limits. Therefore, if the Commission decides to issue Permit Nos. 79188 and PSD-TX-1072, Protestant urges the Commission to adopt the ALJs Findings of Fact and issue the permit with the lowered emissions limits written in the Maximum Allowable Emissions Rates Table. Similarly, because the Applicant did not except to the ALJs' proposal that it be allotted 100 percent of the transcript cost, Protestant requests that no costs be assigned to him.

III. SUMMARY

MACT may be an emissions limitation, but without identifying the mercury-specific control technology they will (or might) use, NRG could well have submitted an application to TCEQ promising a "suite of controls, and if that isn't enough, then we'll sprinkle some magic pixie dust to get mercury emissions down to meet the MACT level." On remand, it will be time

[29] NRG Ex. 7, at 55.
[30] NRG Ex. 7, at 55.
[31] NRG Exceptions, at 16.

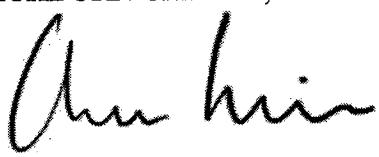
for NRG to get off the fence, select a mercury control technology and commit to install and operate it at Limestone Unit 3.

Once they do so, and upon start-up, NRG might discover that they will meet their MACT emissions limits for mercury due to these control technologies. Protestant even hopes that the efficiency and performance of all mercury control technologies will exceed NRG's expectations and their mercury emissions will be lower than even their permitted MACT levels. Such an outcome can only be good for the citizens of Texas, and is exactly why the BACT/MACT standards are commonly called "technology-forcing."

There are clear applicable requirements for the information that must be included in a case-by-case MACT application. NRG failed to meet these requirements, therefore, Protestant respectfully urges the Commission to deny or remand the MACT HAP-14 permit.

Respectfully submitted,

BLACKBURN CARTER, P.C.



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CERTIFICATE OF SERVICE

On this 23rd day of July, 2009, a true and correct copy of the foregoing instrument was served on all attorneys of record by the undersigned via regular U.S. Mail, and/or Certified Mail/Return Receipt Requested, and/or hand delivery, and/or facsimile transmission, and/or Federal Express Overnight Mail and/or Electronic Mail (e-mail).

Charles W. Irvine

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